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The effect of management efficiency on conservatism

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ABSTRACT

The present study has investigated about the effect of management efficiency on conservatism during a 7 years time period between 2007 and 2013 among 115 firms enlisted in Tehran Stock Exchange. Testing research hypotheses has been carried out by using a multiple variable linear regression method and panel data method has been utilized to finish it. Regarding the results gained, there has been a reverse relationship between managerial efficiency and conservatism in firms enlisted in Tehran Stock Exchange. It means that by increasing managerial efficiency, conditioned conservatism decreases in firms and vice versa. Results of this research hypothesis are the same as the results of a study done by Yoshi Saito (2012) that investigated about the relationship between management efficiency of a firm and conditioned conservatism in firms.

KEYWORDS: *management efficiency, DuPont ratio, conservatism*

INTRODUCTION

The goal of financial reporting and accounting foundations require that the information prepared by financial reporting should have certain characteristics (The professional accounting researches' center, 2006, P: 49). In theoretical foundations of financial reporting in Iran, these characteristics have been called qualitative features. One of the features of conservatism is called using cautiously. Conservatism: 1- creates incentives to make optimized decisions to invest. And 2- it makes the control of performance and investment decisions of management easier. Thus, the precision in managers' efficiency can be considered very useful. Therefore, managers and their decisions affect the conservative approaches in firms and thus managers' efficiency is considered important. It is expected that the results of this research can have scientific achievements and valued added as follows: first, the results of present study can develop the theoretical foundations of previous researches regarding conservatism. Second, the research evidences can show whether business units' management efficiency can affect the conservatism levels or not? This issue, as a scientific achievement, can present useful information for the accounting standard devising and market value and also financial analysts. Third, the research results can suggest new ideas to carry out new researches within conservatism field.

Theoretical foundation

The concept of conservatism in accounting

The researchers have posed several definitions for accounting conservatism. Some of them such as Basso (1997) have defined accounting conservatism as: "a method based on which the recognition of earnings and net assets reduce to react bad news and net assets do not increase to react good news of the recognition of earnings and net assets". But most scholars have referred to the definitions posed for conservatism by Flattom & Elson (1995) in issues related to assets' valuation based on accounting fundamentals. They define accounting conservatism as: "expecting that net value of assets reported by a firm would be less than its market value in long-term". In other words, it is presupposed that if accounting conservatism is utilized, the market value of reported market assets would be more than their book value. Based on this definition, using costs in recognizing the investments will result in creation of the expectation of current positive net value of investments because it is expected that the analysts have estimated these investments less than their value. The researchers have used three main criteria to measure conservatism.

1) Criteria based on accruals: "Givoly & Hayne's criterion, Ball & Shiva Komar criterion.
2) Criteria based on market value
3) Criteria for the relationship between stock return and earnings (lack of information symmetry in recognizing earnings ands losses).

All three criteria are based on asymmetrical effect of conservatism compared to the recognition of earnings and losses and finally are based on accounting figures reported specifically net assets, earnings, and accruals.

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Management efficiency and accounting conservatism

From long ago the assessment of firms' performance has been one of the main issues in accounting, management, and economy. Performance has a direct relationship with goals. Performance assessment is to assess to what extent a firm has achieved the preprogrammed goals. The result of performance assessment is not the goal itself but it is considered as a goal to predict future programs and to improve the strong points and to remove weak points. Firm's performance assessment would not be very important without considering the business characteristics and dominating conditions in commodity market and its services (the assessment and control of data, outputs, and production process) and without considering the position that a firm has within the economic system and structure in the country (Ghanbari, 2007, P: 42). The measurement of financial performance is the basis for many decisions such as managers' rewards, stock price, stock risk, decisions related to investment, and other things. One of the main and most important duties of managers is decision making. They should decide on planning, organizing, and administering. These decision makings should be based on the results of assessments carried out (regarding performance index criteria) and appropriate with working processes in the organization. The permanent assessment of performance results in documentary information appearing in time and being valid for decision making by the managers to aim at promoting the organization and improving its working activities in different fields (Khaleghi-e-Moghaddam & Barzideh, 2003).

In fact firms' performance assessment is one of the most important issues considered by the investors in order to measure the amount of success of management in utilizing the capital and performance assessment is important to make decisions about maintaining, increasing, or selling stocks by the investors. The creditors assess performance in order to make decisions about the amount and rate of credit rendering. Considering the strategic goals of a firm is necessary to select a set of appropriate performance assessment methods for a certain company. The most important aspect considered by the investors is whether their investment's value and performance result and management has increased or not? In other words, has a value been created for them or not. Some economic entities have used various techniques based on different approaches to assess performance during some recent decades but a few of them were satisfied of effective processes of their organizations. Practically there are several approaches for performance assessment and in these approaches there are criteria, indexes, and different ratios. To calculate these items, accounting and economic information and a mixture of them are utilized. In some researches and due to the type of information used to calculate performance assessment criteria and the type of users, different categorizations have been determined for performance assessment criteria.

Management performance assessment criteria were divided into four groups of accounting, pooled, financial management, and economic criteria. Han & Braymer (1997), emphasized at the level of performance assessment and presented another categorization for management performance assessment criteria in which management performance assessment criteria were divided into two overall groups of criteria namely, internal and external criteria. One of the advantages of accounting performance assessment criteria is the simplicity and ease of using them. A shortcoming of performance assessment using these criteria is the use of accounting earning in calculating it and meaninglessness of it in firms that are not profitable. Using accounting earning in accounting performance assessment criteria is not without faults due to lack of possibility of showing earning quality and the capability of earning manipulation by management because of factors as follows: 1- inventory assessment methods, 2- fixed assets' depreciation methods, 3- dealing with capital costs' method, 4- storage methods, 5- pooled key money depreciation methods.

In the past managers considered earning margin to be important and ignored flows repeatedly. Meanwhile, one of the most important duties of managers is to control operational assets. If the surplus assets are utilized in operations it is as if we have increased operational costs. One of the important advantages of return on assets rate formula is that managers are forced to control operational assets and permanently control operational assets by controlling costs, net earning rate, and sales amount. The formula of return on assets' rate is one of the most important criteria to measure managers' efficiency specially to supervise investing centers. This ratio shows that how much percent of earnings have been realized regarding the investments. Return on assets' rate determines the relationship between assets' amount and earnings. If a firm increases its assets but can not increase the amount of its earnings after taxation accordingly, its return on assets' rate decreases. Thus, increasing the amount of assets (investment) can not lead to improve stockholders' wealth by itself.

ROA is an approximate criterion to measure performance. Only in very exceptional conditions it would be possible to consider the real cash return achieved on assets of profit units to be the same as return on assets. The reason for this lack of similarity is the calculation styles used tat is based on using accounting earnings instead of cash flow method. In calculating net accounting earnings and net assets, the cost of depreciation would be taken into consideration as a non-cash cost.

Usually accounting depreciation cost is not the same as real depreciation and therefore net earnings and the book value of assets are deviated. Unlike the faults mentioned above, ROA and cash return move cooperatively and thus ROA can be considered as an approximate criterion of performance. The creditors can use the following items in ROA: 1- assessing the firm's ability in achieving an appropriate rate of return, 2- collecting information about the effectiveness of management of managers in following areas of ROA:

a) Measuring the performance of each section of a firm where each section is considered as an investment center.
b) Assessing the suggestions for capital costs
c) Helping the management goals' devising

Experimental background

Yoshi Saito (2012) carried out a research about management's efficiency and conditioned conservatism and studied about the relationship between firm's management's efficiency and conditioned conservatism in firms. He used a new method to measure management's efficiency to measure Du Pont's ratio. Results showed a reverse relationship between firm's management's efficiency and conditioned conservatism.

Astami & Tower (2003) stated that differences in ownership structure of firms justify the deviations in firm's performance. This showed that ownership characteristics are important because they affect the desirable return rates and also they affect variation strategy. Also they claimed that ownership structure resolves firm's agency problems and affect firm's reporting. They claimed that when there is a high level of ownership concentration, the stockholders will control the production of accounting information and reporting approaches.

Dalival & et al (1982) discussed that Watts & Zimmerman's positive theory (1986) leads to a prediction that firms controlled by managers tend to conservative activities less than firms controlled by the owners.

Jensen & Mc Ling (1976) presupposed that when ownership is less concentrated, managers would have lots of authority over firm's accounting.

Khajavi, Valipour, & Asgari (2010) studied on the effect of conservatism on earning consistency. In this research they presupposed that by increasing conservatism in financial reporting, earning consistency will decrease. Results of their experimental tests by using the data related to a sample comprised of 155 firms enlisted in Tehran Stock Exchange for the time period between the years 1998 and 2007 showed that there has been a negative and meaningful relationship between conservatism and earning consistency.

Moradzadeh & Bani Mahd (2006) showed in a research that accounting conservatism and profitability index (return on assets) have decreased concurrently during the research period in Iran. Firm size and taxation did not affect accounting conservatism and accounting conservatism can not be used as a contracting mechanism for revenue and to reduce the dividends' policy contradictions among stockholders and creditors.

Bani Mahd (2006) studied about conservatism measurement methods in firms enlisted in Tehran Stock Exchange during the time period between 1994 and 2005. He concluded that conservatism used in accounting is reduced due to reductions in return on assets and the reduction of cash returns of assets, and also because of increasing long-term liabilities. Another findings of this research showed that by increasing firms' operations growth, conservatism will also increase.

Hypotheses

Regarding what was pointed out above and the research questions, the research hypothesis can be stated as follows:

Main hypothesis: management's efficiency affects conservatism.

Research method

The research method in both parts regarding the correlation and methodology is quasi-experimental and post incidental and it falls within positive accounting researches that are carried out using real information. Also regarding the goals of research, the present study is applied. Considering data collection method and regarding that past data have been used, the present study is a historical review. To collect data in this research we have used library studies. The information and data required for the research literature and theoretical foundations were extracted from library resources and scientific databases and domestic and foreign articles. To collect research data we have used databases ob Tehran Stock Exchange Organization, databases on software called Tadbirpardaz and Rahaward-e-Novin, and also annual reports and income statements of firms. In the present study we have used a multiple variable linear regression model to test the hypotheses. The statistical method used in this research was panel data method.

Variables

Dependent variable

To measure conservatism we have used a model posed by Givoly & Hayne (2000) accumulated from three years ago that could be calculated as follows. In this criterion the high amount of the entity CONSV shows more conservatism.

$$CONSV_{i,t} = -1 \times \left(\frac{1}{3} \sum_{i-2}^{i} \frac{NOACC_{i,i}}{TA_{i,i}} \right)$$

Where,

$CONSV_{i,t}$ = the amount of conservatism for firm i during fiscal year t

$NOACC_{i,t}$ = non-operational accruals that can be calculated through the difference of total accruals and operational accruals.

$TA_{i,t}$ = total assets of firm i at the end of fiscal year t

Although some of these non-operational accruals result from accepted accounting principles, the timing and the price of most of them are determined by managerial authority. Therefore, the constant presence of negative non-operational accruals during a long-term time period in firms is considered as a criterion for conservatism. That is, the more and negative amount of the average accruals during the related period, there would be more conservatism. Meanwhile, the accumulation rate of net negative non-operational accruals represents the change of conservatism degree during the pass of time (Givoly & Hayne, 2000, 125). Givoly & Hayne introduced this criterion for the first time in 2000 and measured conservatism through 3 models as shown below:

- ACCit = (NIit + DEPit) – CFOit
- OACCit = Δ (APit + TPit) – Δ (ARit + Iit +PEit)
- NOACCit = ACC – OACCit

AR: accounts receivable
NI: net income before unexpected items
DEP: depreciation costs
CFO: operational cash flow
OACC: operational accruals
I: inventories of materials and commodities
PE: prepayments for expenses
AP: accounts payable
TP: taxes paid
NOACC: non-operational accruals

Independent variable
Managerial efficiency

It was calculated easily and through the division of average assets into net income before tax until Yashi Saito calculated Du Pont's ratio in 2011 with a new method and introduced it to financial sciences world. Also we are going to calculate and use the variable above as Yashi Saito calculated Du Pont's ratio.

Du Pont's ratio is comprised of two ratios of assets flow and operational earnings. But in the new method we can also calculate Du Pont's ratio in the following way:

In the ratio above which is a combination of incomes and expenses of the companies we would have:

$$ROA_{it} = (1 - \frac{EXP_{it}}{SALE_{it}})\frac{SALE_{it}}{ASSET_{it-1}}$$

EXP: total firm expenses
We can develop this ratio and calculate it again as follows:

$$ROA_{it} = \frac{SALE_{it}}{ASSET_{it-1}} - \frac{EXP_{it}}{ASSET_{it-1}}$$

This equation also shows that Du Pont's ratio can be calculated in an abridged format by using the data extracted from financial statements. In this research Du Pont's ratio was calculated using the two formats above in calculation methods number 2 & 3. Then, the growth of Du Pont's ratio that is management's performance was measured.

Control variables

Since in a research we can not investigate about all effects of the variables, the researchers have tried to neutralize the effects of some variables through statistical controls or research controls. These variables whose effects can be eliminated by the researcher are called control variables.

The control variables in the present study were as follows:

1- **Liquidity (LQDT):** we have used the current ratio (the ratio of current assets to current liabilities) that has been the most common criterion used to pay short-term liabilities to calculate liquidity (Scott, 1976).
2- **Profitability (ROE):** in this study we have used return on owners' equity that equals the ratio of earning before interest and tax to total owners' equity of the firm as profitability criterion (Izadinia & Alinaghian, 2010).
3- **Growth index (GROWTH):** this variable has been defined as the changes of assets compared to the assets at the start of the period.

ROE is a sign of successful management and on the other hand, if ROA decreases or the organization can not have the ability to resist the critical conditions regarding financial capabilities, the improvement of ROE can be defined as a temporary hallucinating against the problems because ROA tries to control operational assets by controlling net income rate cost and sales amount. In fact ROA measures the amount of efficiency of operational management and ROE calculates the efficiency amount of capital or financial management.

Statistical sample

The statistical population for this research involved all industry groups categorized in Stock Exchange during the time period between 2007 and 2013. For this reason we considered 5 criteria as follows. The process of application of these criteria has been shown in figure 1.

1) The firm should have been accepted in bourse before 2007 and should be active in bourse up to the end of 2013.
2) Due to the certain nature of activities in holdings, insurance, leasing, banks, financial institutions, and investing companies and their considerable differences with manufacturing and business firms, the firms selected should not be from among those mentioned.
3) The fiscal year of the firms should end at 29^{th} Esfand (20^{th} March) and they should not have changed their fiscal year during the time between 2007 and 2013.
4) Due to the nee for 12 returns and considering the 4 month time delays compared to the start of the periods and ends of it, there should not be any exchanges on the stocks of the firms during these times.
5) The financial data of the firms should be accessible.

After considering all criteria above, 115 firms were chosen as our sample and all were included in investigations. Thus, our observations were 805 year-firm.

Research model

To test research hypotheses we have used the following model:

To test the main hypothesis, "the effect of management efficiency on conservatism", we have used the following model:

$$CONSER_{it} = \alpha + \beta_1 PERM_{it} + \beta_2 CONTROLS_{it} + e$$

Testing the hypotheses

H_0: Management's efficiency does not affect conservatism.

H_1: Management's efficiency affects conservatism.

Figure (1): Results of testing the research hypothesis

VIF	*P-Value*	Statistics t	coefficient	Variable
-	0/0111	2/546	0/0140	*Constant*
2/210	0/0000	-5/545	-0/1054	*management efficiency*
1/561	0/0002	3/803	0/0288	*Profitability*
1/467	0/9460	0/067	0/0002	*Liquidity*
1/160	0/0008	3/368	0/0290	*Growth index*
1/022	0/0000	25/764	0/7253	*AR(1)*
0/5138 The coefficient of determination Model				
60/122	(0/0002)	Jarque-Bera Statistics (*P-Value*)	144/629 (0/0000)	Statistics F Model (*P-Value*)
1/847		*watson*-durbin Statistics	1/612 (0/1542)	Breusch-Pagan Statistics (*P-Value*)

Based on results presented in figure (1), since the amount of the probability (P-Value) of t statistic related to the variable 'management's efficiency' has been less than 0.05 (0.0000) and its coefficient was negative (-0.1054), the hypothesis H_0 is rejected and it can be stated that there has been a reverse and meaningful relationship between the index of accounting conservatism and management's efficiency in a way that by increasing management's efficiency, the amount of accounting conservatism of financial statements of firms decreases. Thus, the first research hypothesis is approved in an assurance level of %95.

Conclusion

Regarding the results gained there has been a reverse relationship between management's efficiency and conservatism in firms enlisted in Tehran Stock Exchange. This means that by increasing management's efficiency, the amount of conditioned conservatism in firms reduces and vice versa. Results of this research hypothesis accord with those in a research carried out by Yoshi Saito in 2012 that dealt with studying the relationship between firm management's efficiency and conditioned conservatism in firms. He used a new method to measure management's efficiency in measuring Du Pont's ratio. Results of his research showed the existence of a reverse relationship between firm management's efficiency and conditioned conservatism in firms. Results of his research were the same as the results of testing our research hypothesis.

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